

NONREIMBURSABLE SPACE ACT AGREEMENT  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
LYNDON B. JOHNSON SPACE CENTER  
AND NANORACKS, LLC  
FOR OPERATION OF THE NANORACKS SYSTEM ABOARD THE  
INTERNATIONAL SPACE STATION

ARTICLE 1. AUTHORITY AND PARTIES

In accordance with the National Aeronautics and Space Act (51 U.S.C. §20113), this Agreement is entered into by the National Aeronautics and Space Administration Lyndon B. Johnson Space Center, located at 2101 NASA Parkway, Houston, Texas 77058 (hereinafter referred to as "NASA" or "NASA JSC") and NanoRacks, LLC located at 18100 Upper Bay Road, Suite 150, Houston, TX 77058 (hereinafter referred to as "Partner" or "NanoRacks"). NASA and Partner may be individually referred to as a "Party" and collectively referred to as the "Parties."

ARTICLE 2. PURPOSE

NASA operates a share of the United States accommodations of the International Space Station (ISS) as a national laboratory in accordance with the NASA Authorization Acts of 2005 and 2010. To fulfill this mandate, NASA released an announcement entitled the "OPPORTUNITY FOR THE USE OF THE INTERNATIONAL SPACE STATION BY DOMESTIC ENTITIES OTHER THAN U.S. FEDERAL GOVERNMENT AGENCIES." NanoRacks responded to that announcement with a proposal to further utilize the ISS by launching hardware that enables multiple small payloads to be operated within an Expedite the Processing of Experiments to the Space Station (EXPRESS) Rack (ER) locker. NASA's acceptance of NanoRacks' proposal lead to the issuing of SAA SOMD 6355. NanoRacks has demonstrated under that Space Act Agreement (SAA) it can solicit and service a wide variety of customers including educational and commercial organizations from a variety of sectors, U.S. government agencies, and non-domestic businesses and governments in ways that benefit the U.S. government, U.S. education, and the nation as a whole.

In light of this proven business model, NASA is entering into a Space Act Agreement with NanoRacks whereby each party will perform the responsibilities, as defined in Article 3 – Responsibilities. This agreement will not only enable early proof-of-concept opportunities for any future space-based products or services, but will also provide for on-going services demanded by the commercial, educational and governmental clients that utilize the International Space Station via NanoRacks. The Parties hereby agree to enter into this Agreement to further the commercial development of LEO utilizing the ISS infrastructure.

With the release of NASA Interim Directive (NID) on Use of ISS for Commercial and Marketing Activities, there are now three ways NanoRacks may gain access to ISS resources such as cargo up- and downmass and crew time. First, for research and development activities where the

Principal Investigator (PI) is sponsored by NASA in furtherance of NASA's research and exploration goals, for which NanoRacks is the implementation partner, NASA will sponsor and prioritize use of the resources needed to accommodate these activities. Second, for research and development activities where the PI is funded either using non-NASA funds or via a grant from the ISS National Lab (ISS NL), for which NanoRacks is the implementation partner, the ISS NL will vet, sponsor and prioritize use of the requested resources in accordance with the terms and conditions of a formal agreement between NanoRacks and the ISS NL management entity. Third, activities covered by the NID, using resources purchased under the NID, will be vetted, sponsored, and prioritized by NASA.

All manifesting and increment planning for the ISS National Lab allocation of the payloads, which includes commercial customers, will be coordinated through the entity chosen by NASA to operate the ISS National Lab. All non-NASA-funded payloads are subject to vetting via processes the chosen entity has established. Following completion of these processes, NanoRacks will be provided resources (up mass, crew time, data transmission, power, etc.) sufficient to utilize and operate their facilities on the ISS.

The Items listed below encompass standard NASA Integration services and are included for informational purposes only. They are not a part of this agreement, and therefore, not included in the Estimated Price Report. As with all payloads, these services will be documented in the Payload Integration Agreement (PIA).

1. As approved by the operator of the ISS National Lab, provide NanoRacks resources (up Mass, crew time, data transmission, power, etc.) Sufficient to operate the described research facilities on the ISS.
2. Jointly develop and approve ICDs, with NanoRacks.
3. Provide standard ISS feasibility assessment services to NanoRacks, which includes detailed assessment of the resources needed to carry out the Project.
4. Provide ISS interface information and capabilities for proposed testing, as mutually agreed and documented, including:
  - a. Power systems
  - b. Command and data systems
  - c. Structural interfaces
  - d. EMI/EMC
  - e. Thermal environment
  - f. Ground systems/environment (as necessary)
  - g. Operational constraints
  - h. Safety requirements
  - i. NASA ISS scheduling constraints
5. Respond to NanoRacks questions and support meetings with NanoRacks teams for evaluation of the research hardware on ISS.
6. Provide input to the Mission Requirements Document.
7. Review safety products at the Phase I/II/III Payload Safety Reviews. Additionally, NASA will work with NanoRacks on any safety issues that are identified and consult with the Payload Safety Review Panel on issues and solutions and will endeavor to help identify any unique safety issues.

8. Provide NanoRacks appropriate resources to allow NanoRacks and its customers to effectively conduct research and development on the ISS at NASA's discretion following the process established to plan and integrate activities onboard the ISS.
9. Assist NanoRacks to identify ground-based pre-flight and post-flight resources at launch and primary landing or alternate landing sites. This will include needed facilities and personnel as required to set-up labs, and operate and conduct work for each spaceflight mission on which NanoRacks is manifested for pre-flight and post-flight payload recovery and processing.
10. Engage in outward facing communications intended to highlight the importance of the work being conducted under this Agreement and to encourage broad participation.

## Background

The NanoRacks system is a set of multipurpose ISS-based research facilities designed to host a variety of experiments and activities. NanoRacks' internal facilities provide accommodations, processing systems and analytical tools for its customers on the inside of ISS and its external facilities provide the same services on the outside of the station for its customers.

NanoRacks may provide deployment and transit services to its clients. These services include deployment of satellites from the ISS using means such as the airlock in the Kibo module and the Japanese Experiment Module (JEM) Remote Manipulator System (JRMS). Other services may include the re-use of visiting vehicles where payloads may transit through the ISS. A current list of services is maintained within contract NNJ13GA08C.

## ARTICLE 3. RESPONSIBILITIES

NASA will use reasonable efforts to:

1. For NASA-approved hardware and other facilities, provide NanoRacks with on-orbit accommodations for their suite of hardware on the ISS.
2. For NASA-funded research and technology development payloads utilizing NanoRacks research capabilities and other NanoRacks infrastructure, provide NanoRacks appropriate resources required to conduct these activities (e.g. up mass, crew time, power, etc.).
3. Assist NanoRacks in identifying ground-based preflight and postflight resources at launch and primary landing or alternate landing sites that are required to support NASA-sponsored payloads. This may include access to facilities and personnel to set up labs and conduct operations during the pre- and postflight timeframes. The provision of Space Life Sciences Laboratory (SLSL) and Space Station Processing Facility (SSPF) resources, if required, may be provided under a separate Reimbursable Space Act Agreement. Similar services that may be required in support of non-NASA sponsored payloads shall be requested from the operator of the ISS NL.
4. Jointly approve, with NanoRacks, Interface Control Documents (ICDs) developed by NanoRacks, which define the interface between the NanoRacks systems and the ISS.

5. For non-NASA funded research and technology development payloads, assist NanoRacks in developing lines of communication with the operator of the ISS National Lab, to utilize the processes established to vet non-NASA payloads going to the ISS.

NanoRacks will use reasonable efforts to:

1. Develop the NanoRacks Systems to interface with existing ISS facilities. NanoRacks shall be solely responsible for facility hardware design, development, manufacture, testing, system integration, as well as development of a mockup, operational procedures, ground test equipment and the operational infrastructure to carry out a full-scale flight program.
2. Develop operational concepts for its facilities, including on-orbit activation and operational constraints; crew interface requirements; and on-orbit maintenance.
3. Develop ICDs jointly approved with NASA, which define the interfaces between the NanoRacks systems and the ISS.
4. Design, manufacture and test the NanoRacks facilities and assist NanoRacks' customers in their use of these facilities.
5. Identify and engage academic, commercial and governmental institutions with opportunities to conduct research and development within available NanoRacks flight hardware on board the ISS.
6. Conduct all flight research and development in accordance with NASA payload requirements.
7. Provide a selection process for customers, that includes giving the highest priority to customers with NASA agreements as part of the utilization of the ISS as a national lab. NASA retains the right to review and approve selected customers.
8. Provide NASA with Operational Reports on all payloads flown under this agreement.
9. Provide NASA with reports on and findings from the research and development conducted with payloads flown under this agreement, subject to confidentiality agreements with customers concerning research results.
10. Conduct (either directly or via educational partners) periodic public workshops outlining results from ISS research and future opportunities for such research.
11. For all non-NASA sponsored research and technology development, NanoRacks shall seek resources (e.g. up mass, crew time, power, etc.) and other services (e.g. manifesting, increment planning, etc.) from the ISS National Lab operator, using processes developed for the ISS National Lab to vet and approve payloads flying to the ISS. Alternatively, NanoRacks may work directly with visiting vehicle providers to acquire non-NASA purchased transportation services to the ISS (ex. SpaceX, Northrup Grumman, European Space Agency, Japanese Space Agency, Russian Space Agency).

#### ARTICLE 4. SCHEDULE AND MILESTONES

The planned major milestones for the activities defined in the "Responsibilities" Article are as follows:

Provide report describing capabilities of NanoRacks facilities on ISS and those planned to be added as part of this Agreement in the future. Any future facilities will be accompanied with a development schedule.	30 days after signature of this Agreement
Copies of all ICDs between NanoRacks and NASA will be maintained in NanoRacks library. ICDs shall be developed on a schedule agreed between NanoRacks and NASA as is necessary for hardware development and acceptance.	As agreed with NASA
Provide an Operational Concept document for all existing and planned NanoRacks facilities.	30 days after signing this Agreement for existing facilities and as part of the mission integration process for planned and future facilities
A list of services available to NanoRacks' customers is maintained in contract NNJ13GA08C.	Currently available
Provide a plan to identify and engage academic, commercial and governmental institution with opportunities to conduct research and development within NanoRacks flight hardware on ISS.	60 days after signing this Agreement
Documentation of the customer selection process.	60 days after signing this Agreement.
Description of research objectives for each flight.	As available, but no later than 30 days prior to the flight.
Annual Report shall consist of hardware performance for the research operations conducted during the reporting period. They will include details such as anomalies and functional performance achieved versus planned. The report will also include information on the results of the research and the analysis of samples, subject to confidentiality provisions of customer agreements with NanoRacks.	Nov 30 following each calendar year of SAA performance.
A set of metrics will be agreed between NanoRacks and NASA by September 1, 2019 and will be included in each Annual Report as amended by mutual agreement.	Metrics will include demographics of NanoRacks' ISS customers, as well as, the attendees of their public workshops.

Notification of commercial development, patents, and products that result from ISS research when practicable.

At the time the accomplishments are publically documented.

#### ARTICLE 5. FINANCIAL OBLIGATIONS

There will be no transfer of funds between the Parties under this Agreement and each Party will fund its own participation. All activities under or pursuant to this Agreement are subject to the availability of funds, and no provision of this Agreement shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, (31 U.S.C. §1341).

#### ARTICLE 6. PRIORITY OF USE

Any schedule or milestone in this Agreement is estimated based upon the Parties' current understanding of the projected availability of NASA goods, services, facilities, or equipment. In the event that NASA's projected availability changes, Partner shall be given reasonable notices of that change, so that the schedule and milestones may be adjusted accordingly. The Parties agree that NASA's use of the goods, services, facilities, or equipment shall have priority over the use planned in this Agreement. Should a conflict arise, NASA in its sole discretion shall determine whether to exercise that priority. Likewise, should a conflict arise as between two or more non-NASA Partners, NASA, in its sole discretion, shall determine the priority as between those Partners. This Agreement does not obligate NASA to seek alternative government property or services under the jurisdiction of NASA at other locations.

#### ARTICLE 7. NONEXCLUSIVITY

This Agreement is not exclusive; accordingly, NASA may enter into similar agreements for the same or similar purpose with other private or public entities.

#### ARTICLE 8. LIABILITY AND RISK OF LOSS

- A. The objective of this Article is to establish a cross-waiver of liability in the interest of encouraging participation in the exploration, exploitation, and use of outer space through the International Space Station (ISS). The Parties intend that the cross-waiver of liability be broadly construed to achieve this objective.
- B. For the purposes of this Article:
  - 1. The Term "Damage" means:
    - a. Bodily injury to, or other impairment of health of, or death of, any person;
    - b. Damage to, loss of, or loss of use of any property;

- c. Loss of revenue or profits; or
  - d. Other direct indirect, or consequential Damage.
- 2. The term "Launch Vehicle" means an object, or any part thereof, intended for launch, launched from Earth, or returning to Earth which carries Payloads, persons, or both.
- 3. The term "Partner State" includes each Contracting Party for which the Agreement Among the Government of Canada, Governments of Member States of the European Space Agency, the Government of Japan, the Government of the Russian Federation, and the Government of the United States of America concerning Cooperation on the Civil International Space Station IGA) has entered into force, pursuant to Article 25 of the IGA or pursuant to any successor agreement. A Partner State includes its Cooperating Agency. It also includes any entity specified in the Memorandum of Understanding (MOU) between NASA and the Government of Japan to assist the Government of Japan's Cooperating Agency in the implementation of that MOU.
- 4. The term "Payload" means all property to be flown or used on or in a Launch Vehicle or the ISS.
- 5. The term "Protected Space Operations" means all Launch Vehicle or Transfer Vehicle activities, ISS activities, and Payload activities on Earth, in outer space, or in transit between Earth and outer space in implementation of this Agreement, the IGA, MOUs concluded pursuant to the IGA, and implementing arrangements. It includes, but is not limited to:
  - a. Research, design, development, test, manufacture, assembly, integration, operation, or use of Launch Vehicles or Transfer Vehicles, the ISS, Payloads, or instruments, as well as related support equipment and facilities and services; and
  - b. All activities related to ground support, test, training, simulation, or guidance and control equipment and related facilities or services.

"Protected Space Operations" also includes all activities related to evolution of the ISS, as provide for in Article 14 of the IGA.

"Protected Space Operations" excludes activities on Earth which are conducted on return from the ISS to develop further a Payload's product or process for use other than for ISS-related activities in implementation of the IGA.
- 6. The term "Related Entity" means:
  - a. A contractor or subcontractor of a Party or a Partner State at any tier;
  - b. A user or customer of a Party or a Partner State at any tier; or
  - c. A contractor or subcontractor of a user or customer of a Party or a Partner State at any tier.

The terms "contractor" and "subcontractor" include suppliers of any kind. The term "Related Entity" may also apply to a State, or an agency or institution of a State, having the same relationship to a Partner State as described in paragraphs B.6.a. through B.6.c. of this Article or otherwise engaged in the implementation of Protected Space Operations as defined in paragraph B.5. above.

7. The term "Transfer Vehicle" means any vehicle that operates in space and transfers Payloads or persons or both between two different space objects, between two different locations on the same space object, or between a space object and the surface of a celestial body. A Transfer Vehicle also includes a vehicle that departs from and returns to the same location on a space object.

C. Cross-waiver of liability:

1. Each Party agrees to a cross-waiver of liability pursuant to which each party waives all claims against any of the entities or persons listed in paragraphs C.1.a. through C.1.d. of this Article based on Damage arising out of Protected Space Operations. This cross-waiver shall apply only if the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations. The cross-waiver shall apply to any claims for Damage, whatever the legal basis for such claims, against:
  - a. Another Party;
  - b. A Partner State other than the United States of America;
  - c. A related Entity of any entity identified in paragraph C.1.a. or C.1.b. of this Article; or
  - d. The employees of any of the entities identified in paragraphs C.1.a through C.1.c of this Article.
2. In addition, each Party shall, by contract or otherwise, extend the cross-waiver of liability, as set forth in paragraph C.1. of this Article, to its Related Entities by requiring them, by contract or otherwise, to:
  - a. Waive all claims against the entities or persons identified in paragraphs C.1.a through C.1.d of this Article; and
  - b. Require that their Related Entities waive all claims against the entities or persons identified in paragraphs C.1.a. through C.1.d. of this Article.
3. For avoidance of doubt, this cross-waiver of liability includes a cross-waiver of claims arising from the Convention on International Liability for Damage Caused by Space Objects, which entered into force on September 1, 1972, where the person, entity, or property causing the Damage is involved in Protected Space Operations and the person, entity, or property damaged is damaged by virtue of its involvement in Protected Space Operations.
4. Notwithstanding the other provisions of this Article, this cross-waiver of liability shall not be applicable to:
  - a. Claims between a Party and its own Related Entity or between its own Related Entities;
  - b. Claims made by a natural person, his/her estate, survivors or subrogees (except when a subrogee is a Party to this Agreement or is otherwise bound by the terms of this cross-waiver) for bodily injury to or other impairment of health of or death of such person;
  - c. Claims for Damage caused by willful misconduct;
  - d. Intellectual property claims;



- e. Claims for Damage resulting from a failure of a Party to extend the cross-waiver of liability to its Related Entities, pursuant to paragraph C.2. of this Article; or
    - f. Claims by a Party arising out of or relating to another Party's failure to perform its obligations under this Agreement.
  - 5. Nothing in this Article shall be construed to create the basis for a claim or suit where none would otherwise exist.
- D. To the extent that activities under this Agreement are not within the definition of "Protected Space Operations," defined above, the following unilateral waiver of claims applies to activities under this Agreement.
- 1. Partner hereby waives any claims against NASA, its employees, its related entities, (including, but not limited to, contractors and subcontractors at any tier, grantees, investigators, customers, users, and their contractors and subcontractors, at any tier) and employees of NASA's related entities for any injury to, or death of, Partner employees or the employees of Partner's related entities, or for damage to, or loss of, Partner's property or the property of its related entities arising from or related to activities conducted under this Agreement, whether such injury, death, damage, or loss arises through negligence or otherwise, except in the case of willful misconduct.
  - 2. Partner further agrees to extend this unilateral waiver to its related entities by requiring them, by contract or otherwise, to waive all claims against NASA, its related entities, and employees of NASA and employees of NASA's related entities for injury, death, damage, or loss arising from or related to activities conducted under this Agreement.

## ARTICLE 9. INTELLECTUAL PROPERTY RIGHTS – DATA RIGHTS

### A. General

- 1. "Related Entity" as used in this Data Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner that is assigned, tasked, or contracted to perform activities under this Agreement.
- 2. "Data" means recorded information, regardless of form, the media on which it is recorded, or the method of recording.
- 3. "Proprietary Data" means Data embodying trade secrets developed at private expense or commercial or financial information that is privileged or confidential, and that includes a restrictive notice, unless the Data is:
  - a. known or available from other sources without restriction;
  - b. known, possessed or developed independently, and without reference to the Proprietary Data;
  - c. made available by the owners to others without restriction; or

- d. required by law or court order to be disclosed.
4. Data exchanged under this Agreement is exchanged without restriction except as otherwise provided herein.
5. Notwithstanding any restrictions provided in this Article, the Parties are not restricted in the use, disclosure, or reproduction of Data provided under this Agreement that meets one of the exceptions in 3., above. If a Party believes that any exceptions apply, it shall notify the other Party before any unrestricted use, disclosure, or reproduction of the Data.
6. The Parties will not exchange preexisting Proprietary Data under this Agreement unless authorized herein or in writing by the owner.
7. IF the Parties exchange Data having a notice that Receiving Party deems is ambiguous or unauthorized, the Receiving Party shall tell the Providing Party. If the notice indicates a restriction, the Receiving Party shall protect the Data under this Article unless otherwise directed in writing by the Providing Party.
8. The Data rights herein apply to the employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this Article.
9. Disclaimer of Liability: NASA is not restricted in, or liable for, the use, disclosure, or reproduction of Data without a restrictive notice under paragraphs A.3., B. or H. of this Article or for Data Partner gives, or is required to give, the U.S. Government without restriction.
10. Partner may use the following or a similar restrictive notice under paragraphs A.3., B. and H. of this Article.

#### Proprietary Data Notice

The data herein included Proprietary Data and are restricted under the Data Rights provisions of Space Act Agreement [provide applicable identifying information]. Partner should also mark each page containing Proprietary Data with the following or a similar legend: "Proprietary Data – Use And Disclose Only Under the Notice on the Title or Cover Page."

#### B. Data First Produced by Partner Under this Agreement

If Data first produced by Partner or its Related Entities under this Agreement is given to NASA, and the Data is Proprietary Data, and it includes a restrictive notice, NASA will use reasonable efforts to protect it. The Data will be disclosed and used (under suitable protective conditions) only for U.S. Government purposes.

#### C. Data First Produced by NASA Under this Agreement

If Partner requests that Data first produced by NASA or its Related Entities under this Agreement be protected, and NASA determines it would be Proprietary Data if obtained from Partner, NASA will mark it with a restrictive notice and use reasonable efforts to

protect it for two years after its development. During this restricted period the Data may be disclosed and used (under suitable protective conditions) for U.S. Government purposes only, and thereafter for any purpose. Partner must not disclose the Data without NASA's written approval during the restricted period. The restrictions placed on NASA do not apply to Data disclosing a NASA owned invention for which patent protection is being considered.

#### D. Publication of Results

The National Aeronautics and Space Act (51 U.S.C §20112) requires NASA to provide for the widest practicable and appropriate dissemination of information concerning its activities and the results thereof. As such, NASA may publish unclassified and non-Proprietary Data resulting from work performed under this Agreement. The Parties will coordinate publication of results allowing a reasonable time to review and comment.

#### E. Data Disclosing an Invention

If the Parties exchange Data disclosing an invention for which patent protection is being considered, and the furnishing Party identifies the Data as such when providing it to the Receiving Party, the Receiving Party shall withhold it from public disclosure for a reasonable time (one (1) year unless otherwise agreed or the Data is restricted for a longer period herein).

#### F. Copyright

Data exchanged with a copyright notice and no indication of restriction under paragraphs A.3., B, C, or H of this Article (i.e., Data has no restrictive notice) is presumed to be published. The following royalty-free licenses apply.

1. If indicated on the Data that it was produced outside of this Agreement, it may be reproduced, distributed, and used to prepare derivative works only for carrying out the Receiving Party's responsibilities under this Agreement.
2. Data without the indication of 1. Is presumed to be first produced under this Agreement. Except as otherwise provided in paragraph E. of this Article, and in the Invention and patent Rights Article of this Agreement for protection of reported inventions, the Data may be reproduced, distributed, and used to prepare derivative works for any purpose.

#### G. Data Subject to Export Control

Whether or not marked, technical data subject to the export laws and regulations of the United States provided to Partner under this Agreement must not be given to foreign

persons or transmitted outside the United States without proper U.S. Government authorization.

H. Handling of Background, Third party Proprietary, and Controlled Government Data

1. NASA or partner (as Disclosing Party) may provide the other Party or its Related Entities (as Receiving Party):
  - a. Proprietary Data developed at Disclosing Party's expense outside of this Agreement (referred to as Background Data);
  - b. Proprietary Data of third parties that Disclosing Party has agreed to protect or is required to protect under the Trade Secrets Act (18 U.S.C. §1905) (referred to as Third Party Proprietary Data); and
  - c. U.S. Government Data, including software and related Data, Disclosing Party intends to control (referred to as Controlled Government Data).
2. All Background, Third Party Proprietary and controlled Government Data provided by Disclosing Party to Receiving Party shall be marked by Disclosing Party with a restrictive notice and protected by Receiving Party in accordance with this Article.
3. Disclosing Party provides the following Data to Receiving Party. The lists below may not be comprehensive, are subject to change, and do not supersede any restrictive notice on the Data.
  - a. Background Data:  
None
  - b. Third Party Proprietary Data:  
None
  - c. Controlled Government Data:  
None
  - d. NASA software and related Data will be provided to Partner under a separate Software Usage Agreement (SUA). Partner shall use and protect the related Data in accordance with this Article. Unless the SUA authorized retention, or Partner enters into a license under 37 C.F.R. Part 404, the related Data shall be disposed of as NASA directs:  
None
4. For Data with a restrictive notice and Data identified in this Agreement, Receiving Party shall:
  - a. Use, disclose, or reproduce the Data only as necessary under this Agreement;
  - b. Safeguard the Data from unauthorized use and disclosure;
  - c. Allow access to the Data only to its employees and any Related Entity requiring access under this Agreement;
  - d. Except as otherwise indicated in 4.c., preclude disclosure outside Receiving Party's organization;
  - e. Notify its employees with access about their obligations under this Article and ensure their compliance, and notify any Related Entity with access about their obligations under this Article; and

f. Dispose of the Data as Disclosing Party directs.

I. Oral and visual information

If Partner discloses Proprietary Data orally or visually, NASA will have no duty to restrict, or liability for disclosure or use, unless Partner:

1. Orally informs NASA before initial disclosure that the Data is Proprietary Data, and
2. Reduces the Data to tangible form with a restrictive notices as required by paragraphs A.3., B, and H of this Article, and gives it to NASA within ten (10) calendar days after disclosure.

ARTICLE 10. INTELLECTUAL PROPERTY RIGHTS - RIGHTS IN RAW DATA  
GENERATED UNDER THE AGREEMENT

1. Raw Data

Raw data (i.e., unanalyzed data) and related Data produced under this Agreement is reserved to Principal Investigators (and Co-Investigators if any) named in this Agreement for scientific analysis and first publication rights for 12 months beginning with receipt of the Data in a form suitable for analysis. Subject to the provisions of the Intellectual Property Rights - Data Rights Article of this Agreement, NASA and Partner may also use the Data during the restricted period. This use will not prejudice the investigators' first publication rights.

2. Final Results

(a) Final results shall be made available to the scientific community through publication in appropriate journals or other established channels as soon as practicable and consistent with good scientific practice. Under the Publication of Results provision of the Intellectual Property Rights - Data Rights clause of this Agreement, the Parties shall coordinate proposed publications allowing a reasonable time for review and comment.

(b) NASA and Partner have a royalty-free right to reproduce, distribute, and use published final results for any purposes. Partner must notify publisher of NASA's rights.

ARTICLE 11. INTELLECTUAL PROPERTY RIGHTS – INVENTION AND PATENT  
RIGHTS

#### A. General

1. NASA has determined that 51 U.S.C. §20135(b) does not apply to this Agreement. Therefore, title to inventions made (conceived or first actually reduced to practice) under this Agreement remain with the respective inventing party(ies). No invention or patent rights are exchanged or granted under this Agreement, except as provided herein.
2. "Related Entity" as used in this Invention and Patent Rights Article means a contractor, subcontractor, grantee, or other entity having a legal relationship with NASA or Partner assigned, tasked, or contracted with to perform activities under this Agreement.
3. The invention and patent rights herein apply to employees and Related Entities of Partner. Partner shall ensure that its employees and Related Entity employees know about and are bound by the obligations under this Article.

#### B. NASA Inventions

NASA will use reasonable efforts to report inventions made under this Agreement by its employees. Upon request, NASA will use reasonable efforts to grant Partner, under 37 C.F.R. Part 404, a negotiated license to any NASA invention made under this Agreement. This license is subject to paragraph E.1. of this Article.

#### C. NASA Related Entity Inventions

NASA will use reasonable efforts to report inventions made under this Agreement by its Related Entity employees, or jointly between NASA and Related Entity employees, where NASA has the right to acquire title. Upon request, NASA will use reasonable efforts to grant Partner, under 37 C.F.R. Part 404, a negotiated license to any of these inventions where NASA has acquired title. This license is subject to paragraph E.2. of this Article.

#### D. Joint Inventions With Partner

The Parties will use reasonable efforts to report, and cooperate in obtaining patent protection on, inventions made jointly between NASA employees, Partner employees, and employees of either Party's Related Entities. Upon timely request, NASA may, at its sole discretion and subject to paragraph E. of this Article:

1. Refrain from exercising its undivided interest inconsistently with Partner's commercial business; or
2. Use reasonable efforts to grant Partner, under 37 C.F.R. Part 404, an exclusive or partially exclusive negotiated license.

#### E. Rights to be Reserved in Partner's License

Any license granted Partner under paragraphs B., C., or D. of this Article is subject to the following:

1. For inventions made solely or jointly by NASA employee, NASA reserves the irrevocable, royalty-free right of the U.S. Government to practice the invention or have it practiced on behalf of the United States or on behalf of any foreign government or international organization pursuant to any existing or future treaty or agreement with the United States.
2. For inventions made solely or jointly by employees of a NASA Related Entity, NASA reserves the rights in 1. Above, and a revocable, nonexclusive, royalty-free license retained by the Related Entity under 14 C.F.R. §1245.108 or 37 C.F.R. §401.14(e).

#### F. Protection of Reported Inventions

For inventions reported under this Article, the Receiving Party shall withhold all invention reports or disclosures from public access for a reasonable time (1 year unless otherwise agreed or unless restricted longer herein) to facilitate establishment of patent rights.

#### G. Patent Filing Responsibilities and Costs

1. The invention and patent rights herein apply to any patent application or patents covering an invention made under this Agreement. Each Party is responsible for its own costs of obtaining and maintain patents covering sole inventions of its employees. The Parties may agree otherwise, upon the reporting of any invention (sole or joint) or in any license granted.
2. Partner shall include the following in patent applications for an invention made jointly between NASA employees, its Related Entity employees and Partner employees:

The invention described herein may be manufactured and used by or for the U.S. Government for U.S. Government purpose without the payment of royalties thereon or therefore.

[Note: Partner should be informed that it can locate NASA technology available for licensing by visiting the following website address –

<http://technology.nasa.gov>.]

### ARTICLE 12. USE OF NASA NAME AND EMBLEMS

#### A. NASA Name and Initials

Partner shall not use "National Aeronautics and Space Administration" or "NASA" in a way that creates the impression that a product or service has the authorization, support, sponsorship, or endorsement of NASA, which does not, in fact, exist. Except for releases under the "Release of General Information to the Public and Media" Article, Partner must submit any proposed public use of the NASA name or initials (including press releases and all promotional and advertising use) to the NASA Associate Administrator for the Office of Communications or designee ("NASA Communications") for review and approval. Approval by NASA Office of Communications shall be based on applicable law and policy governing the use of the NASA name and initials.

#### B. NASA Emblems

Use of NASA emblems (i.e., NASA Seal, NASA Insignia, NASA logotype, NASA Program Identifiers, and the NASA Flag) is governed by 14 C.F.R. Part 1221. Partner must submit any proposed use of the emblems to NASA Communications for review and approval.

### ARTICLE 13. RELEASE OF GENERAL INFORMATION TO THE PUBLIC AND MEDIA

NASA or Partner may, consistent with Federal law and this Agreement, release general information regarding its own participation in this Agreement as desired.

Pursuant to Section 841(d) of the NASA Transition Authorization Act of 2017, Public Law 115-10 (the "NTAA"), NASA is obligated to publicly disclose copies of all agreements conducted pursuant to NASA's 51 U.S.C. §20113(e) authority in a searchable format on the NASA website within 60 days after the agreement is signed by the Parties. The Parties acknowledge that a copy of this Agreement will be disclosed, without redactions, in accordance with the NTAA.

### ARTICLE 14. DISCLAIMER OF WARRANTY

Goods, services, facilities, or equipment provided by NASA under this Agreement are provided "as is." NASA makes no express or implied warranty as to the condition of any such goods, services, facilities, or equipment, or as to the condition of any research or information generated under this Agreement, or as to any products made or developed under or as a result of this Agreement included as a result of the use of information generated hereunder, or as to the merchantability or fitness for particular purpose of such research, information, or resulting product, or that the goods, services facilities or equipment provided will accomplish the intended results or are safe for any purpose including the intended purpose, or that any of the above will not interfere with privately-owned rights of others. Neither the government nor its contractors shall be liable for special, consequential or incidental damages attributed to such equipment,



facilities, technical information, or services provided under this Agreement or such research, information, or resulting products made or developed under or as a result of this Agreement.

#### ARTICLE 15. DISCLAIMER OF ENDORSEMENT

NASA does not endorse or sponsor any commercial product, service or activity. NASA's participation in this Agreement or provision of goods, services, facilities or equipment under this Agreement does not constitute endorsement by NASA. Partner agrees that nothing in this Agreement will be construed to imply that NASA authorizes, supports, endorses, or sponsors any product or service of Partner resulting from activities conducted under this Agreement, regardless of the fact that such product or service may employ NASA-developed technology.

#### ARTICLE 16. COMPLIANCE WITH LAWS AND REGULATIONS

- A. The Parties shall comply with all applicable laws and regulations including, but not limited to, safety; security; export control; environmental; and suspension and debarment laws and regulations. Access by a Partner to NASA facilities or property, or to a NASA Information Technology (IT) system or application, is contingent upon compliance with NASA security and safety policies and guidelines including, but not limited to, standards on badging, credentials, and facility and IT system/application access.
- B. With respect to any export control requirements:
  - 1. The Parties will comply with all U.S. export control laws and regulations, including the International Traffic in Arms Regulations (ITAR), 22 C.F.R. Parts 120 through 130, and the Export Administration Regulations (EAR), 15 C.F.R. Parts 740 through 799, in performing work under this Agreement or any Annex to this Agreement. In the absence of available license exemptions or exceptions, the Partner shall be responsible for obtaining the appropriate licenses or other approvals, if required, for exports or hardware, technical data and software, or for the provision of technical assistance.
  - 2. The Partner shall be responsible for obtaining export licenses, if required, before utilizing foreign persons in the performance of work under this Agreement or any Annex under this Agreement, including instances where the work is to be performed on-site at NASA and where the foreign person will have access to export-controlled technical data or software.
  - 3. The Partner will be responsible for all regulatory record-keeping requirements associated with the use of licenses and license exemptions or exceptions.
  - 4. The Partner will be responsible for ensuring that the provisions of this Article apply to its related Entities.

C. With respect to suspension and debarment requirements:

1. The Partner hereby certifies, to the best of its knowledge and belief, that it has complied, and shall comply, with 2 C.F.R. Part 180, Subpart C, as supplemented by 2 C.F.R. Part 1880, Subpart C.
2. The Partner shall include language and requirements equivalent to those set forth in subparagraph C.1., above, in any lower-tier covered transaction entered into under this Agreement.

#### ARTICLE 17. TERM OF AGREEMENT

This Agreement becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or five years from the Effective Date, whichever comes first.

#### ARTICLE 18. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Agreement by providing thirty (30) calendar days written notice to the other Party.

#### ARTICLE 19. CONTINUING OBLIGATIONS

The rights and obligations of the Parties that, by their nature, would continue beyond the expiration or termination of this Agreement, e.g., "Liability and Risk of Loss" and "Intellectual Property Rights" related clauses [and "Financial Obligations" if Reimbursable] shall survive such expiration or termination of this Agreement.

#### ARTICLE 20. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Agreement.

##### Management Points of Contact

NASA Lyndon B. Johnson Space Center  
Michael E. Read  
Manager, Commercial Space Utilization  
Office  
Mail Stop: OZ4  
2101 NASA Parkway  
Houston, Texas 77058  
Phone: (281) 244-7656  
Fax: (281) 244-8292  
[michael.e.read@nasa.gov](mailto:michael.e.read@nasa.gov)

NANORACKS, LLC  
Stephanie Purgerson  
Chief Operating Officer  
555 Forge River Road  
Suite120  
Webster, TX 77598  
Phone: (281) 823-7142  
[spurgerson@nanoracks.com](mailto:spurgerson@nanoracks.com).

#### Contractual Points of Contact

NASA Lyndon B. Johnson Space Center  
Aracellie Torres  
Commercial Portfolio Manager  
Mail Stop: OZ4  
2101 NASA Parkway  
Houston, Texas 77058  
Phone: (281) 483-6655  
Fax: (281) 244-8292  
[aracellie.torres@nasa.gov](mailto:aracellie.torres@nasa.gov)

NANORACKS, LLC  
Chris Cummins  
Chief Operating Officer  
555 Forge River Road  
Suite120  
Webster, TX 77598  
Phone: (832) 632-7754  
[ckcummins@nanoracks.com](mailto:ckcummins@nanoracks.com)

#### Principle Investigator Point of Contact

NASA Lyndon B. Johnson Space Center  
2101 NASA Parkway  
Houston, Texas 77058

NANORACKS, LLC  
555 Forge River Road  
Suite120  
Webster, TX 77598

#### ARTICLE 21. DISPUTE RESOLUTION

Except as otherwise provided in the Article entitled "Priority of Use," the Article entitled "Intellectual Property Rights – Invention and Patent Rights" (for those activities governed by 37 C.F.R. Part 404), and those situations where a pre-existing statutory or regulatory system exists (e.g., under the Freedom of Information Act, 5 U.S.C. §552), all disputes concerning question of fact or law arising under this Agreement shall be referred by the claimant in writing to the appropriate person identified in this Agreement as the "Points of contact." The persons identified as the "Points of Contact" for NASA and the Partner will consult and attempt to resolve all issues arising from the implementation of this Agreement. If they are unable to come to agreement on any issue, the dispute will be referred to the signatories to this Agreement, or their designees, for joint resolution. If the Parties remain unable to resolve the dispute, then the NASA signatory or that person's designee, as applicable, will issue a written decision that will be the final agency decision for the purpose of judicial review. Nothing in this Article limits or prevents either Party from pursuing any other right or remedy available by law upon the issuance of the final agency decision.

#### ARTICLE 22. INVESTIGATIONS OF MISHAPS AND CLOSE CALLS

In the case of a close call, mishap or mission failure, the Parties agree to provide assistance to each other in the conduct of any investigation. For all NASA mishaps or close calls, Partner agrees to comply with NPR 8621.1, "NASA Procedural Requirements for MISHAP and Close Call Reporting, Investigating, and Recordkeeping" and JPR 8621.1 "Johnson Space Center

Mishap Response Plan.” This Article does not apply where activities under this Agreement are undertaken at Partner’s facility and where no NASA personnel, hardware, equipment or other property is present and subject to injury, damage or loss.

#### ARTICLE 23. MODIFICATIONS

Any modification to this Agreement shall be executed, in writing, and signed by an authorized representative of NASA and the Partner.

#### ARTICLE 24. ASSIGNMENT

Neither this Agreement nor any interest arising under it will be assigned by the Partner or NASA without the express written consent of the officials executing, or successors, or higher-level officials possessing original or delegated authority to execute this Agreement.

#### ARTICLE 25. APPLICABLE LAW

U.S. Federal law governs this Agreement for all purposes, including, but not limited to determining the validity of the Agreement, the meaning of its provisions, and the rights, obligations and remedies of the Parties.

#### ARTICLE 26. INDEPENDENT RELATIONSHIP

This Agreement is not intended to constitute, create, give effect to or otherwise recognize a joint venture, partnership, or formal business organization, or agency agreement of any kind, and the rights and obligations of the Parties shall be only those expressly set forth herein.

#### ARTICLE 27. LOAN OF GOVERNMENT PROPERTY

The parties shall enter into a NASA Form 893, Loan of NASA Equipment, for NASA equipment loaned to Partner.

#### ARTICLE 28. SPECIAL CONSIDERATIONS

##### ARTICLE 28. ACTIVITIES WITH NASA DESIGNATED COUNTRIES AND NON-ISS PARTNERS

- A. The Partner shall notify NASA prior to engaging with a NASA designated Country (or entity or person therein) listed on NASA's Designated Countries List. If the Partner continues to pursue activities with the NASA Designated Country, the Partner shall continue consultations with NASA. Consultations will ensure NASA identifies to the Partner any concerns it might have with the contemplated engagement at the earliest possible moment and also ensure full compliance with all relevant policies, regulations and laws. The Partner is required to follow the most current list of NASA's Designated

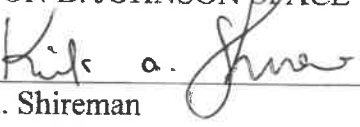
Countries, which can be found at the NASA Export Control website at <https://oir.hq.nasa.gov/nasaecp/>.

- B. NASA retains the right to approve the implementation of any Partner agreement with users or customers from a non-ISS Partner nation in furtherance of this Agreement. It is recommended that the Partner provide advance notification to NASA of its plans to conclude any such an agreement so that NASA can initiate appropriate actions to ensure compliance with U.S. laws/regulations, as well as, all NASA and ISS multilateral procedures, including the non-Partner Participant process. Partner understands that if they choose to sign an agreement prior to receiving approval from NASA, they take the risk that NASA may not approve implementation of the agreement.
- C. The Partner shall work through the NASA POC to fulfill A and B of this Article.

#### ARTICLE 29. SIGNATORY AUTHORITY

The signatories to this Agreement covenant and warrant that they have authority to execute this Agreement. By signing below, the undersigned agrees to the above terms and conditions.

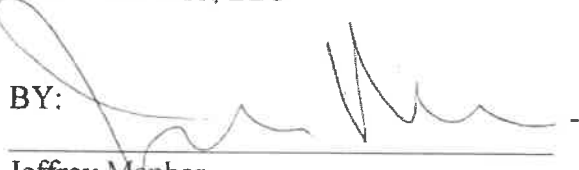
NATIONAL AERONAUTICS AND  
SPACE ADMINISTRATION  
LYNDON B. JOHNSON SPACE CENTER  
BY:

  
Kirk A. Shireman  
Manager of International Space Station  
Program

31 KAS  
DATE: July 29, 2019

NANORACKS, LLC

BY:

  
Jeffrey Manber  
Managing Director  
555 Forge River Road  
Suite 120  
Webster, TX 77598

DATE: July 29<sup>th</sup>, 2019.

